

Claims

1. A method for preparing a pattern bonded and creped nonwoven web comprising
- 5 a) providing a nonwoven fibrous web having a first side and a second side, the nonwoven fibrous web comprises thermoplastic fibers;
- b) transferring and adhering the nonwoven fibrous web to a first roll, such that the first side of the nonwoven fibrous web faces the first roll;
- 10 c) bonding the nonwoven fibrous web transferred and adhered to the first roll by contacting the fibrous web with a second roll comprising a pattern, such that the nonwoven fibrous web is passed between a nip formed between the first roll and the second roll to form a bonded nonwoven web; and
- d) removing the bonded nonwoven web from the first roll by creping the bonded nonwoven web from the first roll to produce a creped nonwoven web.
- 15 2. The method of claim 1, wherein the nonwoven fibrous web is provided directly from the nonwoven fibrous web forming process.
3. The method of claim 2, wherein the nonwoven fibrous web forming process is a spunbond process.
- 20 4. The method of claim 2, wherein the nonwoven fibrous web forming process is a laminate process comprising at least one spunbond layer and at least one meltblown layer.
- 25 5. The method of claim 1, wherein the nonwoven fibrous web is transferred and adhered to the first roll by applying an adhesive to the first roll, to the first side of the nonwoven web or to both the first side of the nonwoven web and the first roll.
- 30 6. The method of claim 5, wherein the adhesive is placed on the first roll by a method selected from the group consisting of printing, spraying and dipping.
7. The method of claim 5, wherein the adhesive is place on the first side of the nonwoven fibrous web by a method selected from the group consisting of printing, spraying and dipping.

8. The method of claim 5, wherein the adhesive is a hot melt adhesive.
9. The method of claim 1, wherein the nonwoven fibrous web comprises an adhesive
5 component in a thermoplastic polymeric component of the thermoplastic fibers of the
nonwoven fibrous web and the adhesive component adheres the nonwoven fibrous
web to the first roll when the nonwoven web is transferred to the first roll.
10. The method of claim 1, wherein the second roll has a pattern of raised portion which
10 contact the nonwoven fibrous web causing the nonwoven fibrous web to comprise
interfiber bonds in the pattern of the raised portions.
11. The method of claim 10, wherein the second roll has a pattern of discontinuous
15 raised portions.
12. The method of claim 11, wherein the second roll has a point bonded pattern.
13. The method of claim 10, wherein the second roll has a pattern of continuous raised
20 portions.
14. The method of claim 1, wherein the first roll has a smooth surface.
15. The method of claim 1, further comprising
25 e) transferring and adhering the second side of the nonwoven web to a third roll
by contacting the second side of the nonwoven fibrous web with the third roll
using an adhesive to adhere the second side of the nonwoven fibrous web to the
third roll; and
f) removing the nonwoven fibrous web adhered to the third roll by creping the
30 nonwoven fibrous web from the third roll with a creping blade to produce a
creped thermoplastic nonwoven web which is creped on both the first and
second sides.
16. The method of claim 15, wherein the adhesive is a hot melt adhesive.

17. The method of claim 15, wherein the adhesive is placed on the third roll by a method selected from the group consisting of printing, spraying and dipping.

5 18. The method of claim 15, wherein the adhesive is place on the second side of the nonwoven fibrous web by a method selected from the group consisting of printing, spraying and dipping.

10 19. The method of claim 9, further comprising
e) transferring and adhering the second side of the nonwoven web to a third roll by contacting the second side of the nonwoven fibrous web with the third roll; and
f) removing the nonwoven fibrous web adhered to the third roll by creping the nonwoven fibrous web from the third roll with a creping blade to produce a creped thermoplastic nonwoven web which is creped on both the first and second sides.

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20. The creped nonwoven web produced by the method of claim 1.

21. The creped nonwoven web produced by the method of claim 10.

20 22. The creped nonwoven web produced by the method of claim 15.

23. The creped nonwoven web according to claim 20, wherein the nonwoven web is creped in the bond pattern of the bond roll.

25 24. The creped nonwoven web according to claim 21, wherein the nonwoven web is creped in the bond pattern of the bond roll.

25. The creped nonwoven web according to claim 20, wherein the nonwoven web is creped in the bond pattern of the bond roll.

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